A 9

Table 10 shows sequence alignment between a NOV3 polypeptide with various fibromodulins: ACC NO: O43408 (SEQ ID NO:61), ACC NO: AP000597 (SEQ ID NO:7), ACC NO: O43155 (SEQ ID NO:62), ACC NO: O42235 (SEQ ID NO:63) and FMOD Bovin FM (SEQ ID NO:64). (Black outlined amino acids indicate potential regions of conserved sequence; greyed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs)

Insert the sequence listing pages 1 - 42 at the end of the specification.

#### REMARKS

The specification has been amended throughout to insert SEQ ID NO:34 – SEQ ID NO:64 which were omited by typographical error and to insert the sequence listing. Applicants submit that the above amendments add no new matter.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Applicants believe that no fee is due with the submission of this Preliminary

Amendment. However, the Commissioner is hereby authorized to charge any additional fees
that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311,

Attorney Reference No. 15966-585A (Cura-85A).

#### CONCLUSION

On the basis of the foregoing amendment and remark, Applicants respectfully submit that the pending claims are in condition for allowance. Should any questions or issues arise Serial No. 09/687,276. Applicant(s): Prayaga et al.

concerning this application, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

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### Version with markings to show changes made

### In the Specification:

Table 2 on page 9 has been amended as follows:

### Table 2. Comparison between a NOV1 polypeptide and thymosin beta-10 from human

Table 3 on page 9 has been amended as follows:

### Table 3. Multiple Sequence alignment of a NOV1 polypeptide and the thymosin beta family

(Black outlined amino acids indicate potential regions of conserved sequence; grayed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs. Sequences may be referenced by the SWISSPROT or TREMBL ID.)

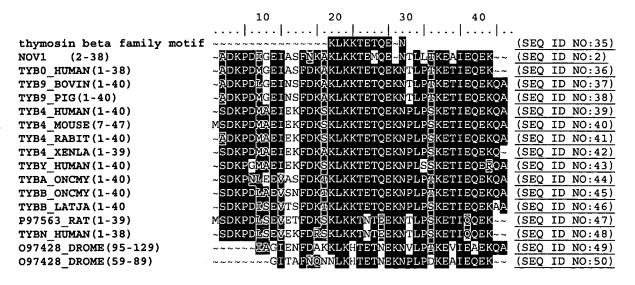


Table 4 on page 10 has been amended as follows:

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# Table 4. PFAM alignment of a NOV1 polypeptide to the consensus sequence of the thymosin beta family

```
>PD005116 (Closest domain: TYB0_HUMAN 1-38)
Number of sequences in family: 16
Most frequent protein names:
                             TYB4(4) TYB9(2) TYBB(2)
Commentary (automatic):
          THYMOSIN ACETYLATION T-CELL DIFFERENTIATION
          IMMUNOPOTENTIATION THYMUS BETA-4 ACTIN-BINDING PROTEIN
          RETA
          Length = 38
  Score = 145 (60.9 bits), Expect = 5e-10
  Identities = 32/38 (84%), Positives = 34/38 (89%), Gaps = 1/38 (2%)
 NOV1:
           2 ADKPDIGEIASFNKAKLKKTEMQE-NTLLTKEAIEQEK 38 (SEQ ID NO:2)
             Sbjct:
           1 ADKPDMGEIASFDKAKLKKTETQEKNTLPTKETIEQEK 38 (SEQ ID NO:51)
```

Table 6 beginning on page 13 has been amended as follows:

### Table 6. Comparison between a NOV2 polypeptide and mouse ephrin type-A receptor 8 precursor

```
>ref NP 031965.1 Eph receptor A8
sp | 009127 | EPA8 MOUSE EPHRIN TYPE-A RECEPTOR 8 PRECURSOR (TYROSINE-PROTEIN KINASE
        RECEPTOR EEK) (EPH-AND ELK-RELATED KINASE)
qb|AAB39218.1| (U72207) Eph-and Elk-related kinase [Mus musculus]
       Length = 1004
Score = 3036 bits (7128), Expect = 0.0
Identities = 945/992 (95%), Positives = 964/992 (96%), Gaps = 1/992 (0%)
        MAPARGRLPPALWVVTAAAAAATCVSAARGEVNLLDTSTIHGDWGWLTYPAHGWDSINEV 60
NOV2:
        Sbjct: 1
        MAPARARLSPALWVVTAAAAA-TCVSAGRGEVNLLDTSTIHGDWGWLTYPAHGWDSINEV 59
        DESFQPIHTYQVCNVMSPNQNNWLRTSWVPRDGARRVYAEIKFTLRDCNSMPGVLGTCKE 120
NOV2:
        Sbjct: 60
        DESFRPIHTYQVCNVMSPNQNNWLRTNWVPRDGARRVYAEIKFTLRDCNSIPGVLGTCKE 119
     121 TFNLYYLESDRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRSVGPLSKRG 180
        Sbjct: 120 TFNLHYLESDRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRGVGPLSKRG 179
    181 FYLAFQDIGACLAILSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 240
NOV2:
        Sbjct: 180 FYLAFQDIGACLAILSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 239
     241 DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACVACELGFYKSAPGDQLCARCPPHSHSA 300
        Sbjct: 240 DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACMACELGFYKSAPGDQLCARCPPHSHSA 299
     301 APAAQACHCDLSYYRAALDPPSSACTRPPSAPVNLISSVNGTSVTLEWAPPLDPGGRSDI 360
         Sbjct: 300 TPAAQTCRCDLSYYRAALDPPSAACTRPPSAPVNLISSVNGTSVTLEWAPPLDPGGRSDI 359
NOV2: 361 TYNAVCRRCPWALSRCEACGSGTRFVPQQTSLVQASLLVANLLAHMNYSFWIEAVNGVSD 420
```

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```
Sbjct: 360 TYNAVCRRCPWALSHCEACGSGTRFVPQQTSLAQASLLVANLLAHMNYSFWIEAVNGVSN 419
    421 LSPEPRRAAVVNITTNQAAPSQVVVIRQERAGQTSVSLLWQEPEQPNGIILEYEIKYYEK 480
        Sbjct: 420 LSPEPRSAAVVNITTNQAAPSQVVVIRQERAGQTSVSLLWQEPEQPNGIILEYEIKYYEK 479
    481 DKEMQSYSTLKAVTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 540
NOV2:
        Sbjct: 480 DKEMQSYSTLKAVTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 539
NOV2:
     541 RTIVWICLTLITGLVVLLLLICKKRHCGYSKAFQDSDEEKMHYQNGQAPPPVFLPLHHP 600
        Sbjct: 540 RTIVWICLTLITGLVVLLLLLICKKRHCGYSKAFQDSDEEKMHYQNGQAPPPVFLPLNHP 599
     601 PGKLPEPQFYAEPHTYEEPGRAGRSFTREIEASRIHIEKIIGSGDSGEVCYGRLRVPGQR 660
NOV2:
        Sbjct: 600 PGKFPETOFSAEPHTYEEPGRAGRSFTREIEASRIHIEKIIGSGESGEVCYGRLQVPGQR 659
     661 DVPVAIKALKAGYTERQRRDFLSEASIMGQFDHPNIIRLEGVVTRGRLAMIVTEYMENGS 720
NOV2:
        Sbjct: 660 DVPVAIKALKAGYTERORODFLSEAAIMGOFDHPNIIRLEGVVTRGRLAMIVTEYMENGS 719
     721 LDTFLRTHDGQFTIMQLVGMLRGVGAGMRYLSDLGYVHRDLAARNVLVDSNLVCKVSDFG 780
NOV2:
        Sbjct: 720 LDAFLRTHDGQFTIVQLVGMLRGVGAGMRYLSDLGYIHRDLAARNVLVDGRLVCKVSDFG 779
     781 LSRVLEDDPDAAYTTTGGKIPIRWTAPEAIAFRTFSSASDVWSFGVVMWEVLAYGERPYW 840
NOV2:
        Sbjct: 780 LSRALEDDPEAAYTTAGGKIPIRWTAPEAIAFRTFSSASDVWSFGVVMWEVLAYGERPYW 839
     841 NMTNRDVISSVEEGYRLPAPMGCPHALHQLMLDCWHKDRAQRPRFSQIVSVLDALIRSPE 900
NOV2:
        Sbjct: 840 NMTNQDVISSVEEGYRLPAPMGCPRALHQLMLDCWHKDRAQRPRFAHVVSVLDALVHSPE 899
     901 SLRATATVSRCPPPAFVRSCFDLRGGSGGGGLTVGDWLDSIRMGRYRDHFAAGGYSSLG 960
        Sbjct: 900 SLRATATVSRCPPPAFARSCFDLRAGGSGNGDLTVGDWLDSIRMGRYRDHFAAGGYSSLG 959
     961 MVLRMNAQDVRALGITLMGHQKKILGSIQTMR 992 (SEQ ID NO:5)
        Sbjct: 960 MVLRMNAODVRALGITLMGHQKKILGSIQTMR 991 (SEQ ID NO:52)
```

Table 6A beginning on page 14 has been amended as follows:

## Table 6A. Comparison between a NOV2 polypeptide and human ephrin receptor EphA8

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NOV2 :		TFNLYYLESDRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRSVGPLSKRG 180
Sbjct:		TFNLYYLESDRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRSVGFLSKRG 180
NOV2 :	181	FYLAFQDIGACLAILSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 240
Sbjct:	181	FYLAFQDIGACLAILSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 240
NOV2 :	241	DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACVACELGFYKSAPGDQLCARCPPHSHSA 300
Sbjct:	241	DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACVACELGFYKSAPGDQLCARCPPHSHSA 300
NOV2 :		APAAQACHCDLSYYRAALDPPSSACTRPPSAPVNLISSVNGTSVTLEWAPPLDPGGRSDI 360
Sbjct:		APAAQACHCDLSYYRAALDPPSSACTRPPSAPVNLISSVNGTSVTLEWAPPLDPGGRSDI 360
NOV2 :	361	TYNAVCRRCPWALSRCEACGSGTRFVPQQTSLVQASLLVANLLAHMNYSFWIEAVNGVSD 420
Sbjct:	361	TYNAVCRRCPWALSRCEACGSGTRFVPQQTSLVQASLLVANLLAHMNYSFWIEAVNGVSD 420
NOV2 :	421	LSPEPRRAAVVNITTNQAAPSQVVVIRQERAGQTSVSLLWQEPEQPNGIILEYEIKYYEK 480
Sbjct:	421	LSPEPRRAAVVNITTNQAAPSQVVVIRQERAGQTSVSLLWQEPEQPNGIILEYEIKYYEK 480
NOV2 :		DKEMQSYSTLKAVTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 540
Sbjct:		DKEMQSYSTLKAVTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 540
NOV2 :	541	RTIVWICLTLITGLVVLLLLLICKKRHCGYSKAFQDSDEEKMHYQNGQAPPPVFLPLHHP 600
Sbjct:	541	RTIVWICLTLITGLVVLLLLLICKKRHCGYSKAFQDSDEEKMHYQNGQAPPPVFLPLHHP 600
NOV2 :	601	PGKLPEPQFYAEPHTYEEPGRAGRSFTREIEASRIHIEKIIGSGDSGEVCYGRLRVPGQR 660
Sbjct:	601	PĠĸĹPĖPQFŸAĖPHTŸĖĖPĠŔĀĠŔSFTŔĖIĖĀSŔĬĦĬĖĸĬĬĠŚĠĎŚĠĖVĊŸĠŔĹŔVPĠQŔ 660
NOV2 :	661	DVPVAIKALKAGYTERQRRDFLSEASIMGQFDHPNIIRLEGVVTRGRLAMIVTEYMENGS 720
Sbjct:	661	DVPVAIKALKAGYTERQRRDFLSEASIMGQFDHPNIIRLEGVVTRGRLAMIVTEYMENGS 720
NOV2 :	721	LDTFLRTHDGQFTIMQLVGMLRGVGAGMRYLSDLGYVHRDLAARNVLVDSNLVCKVSDFG 780
Sbjct:	721	LDTFLRTHDGQFTIMQLVGMLRGVGAGMRYLSDLGYVHRDLAARNVLVDSNLVCKVSDFG 780
		LSRVLEDDPDAAYTTTGGKIPIRWTAPEAIAFRTFSSASDVWSFGVVMWEVLAYGERPYW 840
•		ĹŚŔVĹĖĎĎPĎAAYŤŤŤĠĠĸĬPĬŔŴŤAPĖAĬAFŔŤFŚŚAŚĎVŴŚFĠVVMWĖVĹAYĠĖŔPYW 840
		NMTNRDVISSVEEGYRLPAPMGCPHALHQLMLDCWHKDRAQRPRFSQIVSVLDALIRSPE 900
•		SLRATATVSRCPPPAFVRSCFDLRGGSGGGGGLTVGDWLDSIRMGRYRDHFAAGGYSSLG 960
NOV2 :	961	MVLRMNAQDVRALGITLMGHQKKILGSIQTMR 992 (SEQ ID NO:5)
Sbjct:	961	MVLRMNAQDVRALGITLMGHQKKILGSIQTMR 992 (SEQ ID NO:53)

The paragraph beginning at line 4 in Table 7 on page 16 has been amended as follows:

Serial No. 09/687,276 Applicant(s): Prayaga et al.

Table 7 shows multiple sequence alignment of the NOV2 ephrim type-A receptor 8-like protein of the invention, shown as AL035703 Spliced2, with similar proteins. The various aligned proteins are as follows: AL035703 Spliced2 (SEQ ID NO:5) with several proteins: EPA8 Mouse (SEQ ID NO:54), EPA5 Human (SEQ ID NO:55) and EPA5 Chick (SEQ ID NO:56). (Black outlined amino acids indicate potential regions of conserved sequence; greyed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs)

The paragraph beginning at line 5 in Table 9 on page 20 has been amended as follows:

Table 9 shows sequence alignment between a NOV3 polypeptide with several members of the human fibronectin leucine repeat transmembrane family: AAF28461.1|AF169 (SEQ ID NO:57), AAF28460.1|AF169 (SEQ ID NO:58) and AAF28459.1|AF169 (SEQ ID NO:59). (Black outlined amino acids indicate potential regions of conserved sequence; greyed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs)

Table 9. continued on page 21 has been amended as follows:

#### [TABLE 9. continued] TABLE 9A.

```
>ref|NP 037412.1| fibronectin leucine rich transmembrane protein 1
gb AAF28459.1 AF169675 1 (AF169675) leucine-rich repeat transmembrane protein FLRT1
[Homo
        sapiens]
       Length = 674
Score = 1365 bits (3494), Expect = 0.0
Identities = 673/674 (99%), Positives = 674/674 (99%)
NOV3: 1
        MVVAHPTATATTTPTATVTATVVMTTATMDLRDWLFLCYGLIAFLTEVIDSTTCPSVCRC 60
        Sbjct: 1
        MVVAHPTATATTTPTATVTATVVMTTATMDLRDWLFLCYGLIAFLTEVIDSTTCPSVCRC 60
     61 DNGFIYCNDRGLTSIPADIPDDATTLYLQNNQINNAGIPQDLKTKVNVQVIYLYENDLDE 120
NOV3:
        Sbjct: 61
        DNGFIYCNDRGLTSIPADIPDDATTLYLQNNQINNAGIPQDLKTKVNVQVIYLYENDLDE 120
    121 FPINLPRSLRELHLODNNVRTIARDSLARIPLLEKLHLDDNSVSTVSIEEDAFADSKOLK 180
        Sbjct: 121 FPINLPRSLRELHLQDNNVRTIARDSLARIPLLEKLHLDDNSVSTVSIEEDAFADSKOLK 180
NOV3: 181 LLFLSRNHLSSIPSGLPHTLEELRLDDNRISTIPLHAFKGLNSLRRLVLDGNLLANQRIA 240
```

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```
Sbjct: 181 LLFLSRNHLSSIPSGLPHTLEELRLDDNRISTIPLHAFKGLNSLRRLVLDGNLLANQRIA 240
     241 DDTFSRLQNLTELSLVRNSLAAPPLNLPSAHLQKLYLQDNAISHIPYNTLAKMRELERLD 300
        Sbjct: 241 DDTFSRLQNLTELSLVRNSLAAPPLNLPSAHLQKLYLQDNAISHIPYNTLAKMRELERLD 300
     301 LSNNNLTTLPRGLFDDLGNLAQLLLRNNPWFCGCNLMWLRDWVKARAAVVNVRGLMCQGP 360
        Sbjct: 301 LSNNNLTTLPRGLFDDLGNLAQLLLRNNPWFCGCNLMWLRDWVKARAAVVNVRGLMCQGP 360
     361 EKVRGMAIKDITSEMDECFETGPQGGVANAAAKTTASNHASATTPQGSLFTLKAKRPGLR 420
        Sbjct: 361 EKVRGMAIKDITSEMDECFETGPQGGVANAAAKTTASNHASATTPQGSLFTLKAKRPGLR 420
     421 LPDSNIDYPMATGDGAKTLAIHVKALTADSIRITWKATLPASSFRLSWLRLGHSPAVGSI 480
NOV3:
        Sbjct: 421 LPDSNIDYPMATGDGAKTLAIHVKALTADSIRITWKATLPASSFRLSWLRLGHSPAVGSI 480
     481 TETLVOGDKTEYLLTALEPKSTYIICMVTMETSNAYVADETPVCAKAETADSYGPTTTLN 540
        Sbjct: 481 TETLVQGDKTEYLLTALEPKSTYIICMVTMETSNAYVADETPVCAKAETADSYGPTTTLN 540
     541 QEQNAGPMASLPLAGIIGGAVALVFLFLVLGAICWYVHQAGELLTRERAYNRGSRKKDDY 600
        Sbjct: 541 QEQNAGPMASLPLAGIIGGAVALVFLFLVLGAICWYVHQAGELLTRERAYNRGSREKDDY 600
     601 MESGTKKDNSILEIRGPGLQMLPINPYRAKEEYVVHTIFPSNGSSLCKATHTIGYGTTRG 660
NOV3:
        Sbjct: 601 MESGTKKONSILEIRGPGLOMLPINPYRAKEEYVVHTIFPSNGSSLCKATHTIGYGTTRG 660
     661 YRDGGIPDIDYSYT 674 (SEQ ID NO:7)
        Sbjct: 661 YRDGGIPDIDYSYT 674 (SEQ ID NO:60)
```

The paragraph beginning at line 6 in Table 10 on page 22 has been amended as follows:

Table 10 shows sequence alignment between a NOV3 polypeptide with various fibromodulins: ACC NO: O43408 (SEQ ID NO:61), ACC NO: AP000597 (SEQ ID NO:7), ACC NO: O43155 (SEQ ID NO:62), ACC NO: O42235 (SEQ ID NO:63) and FMOD Bovin FM (SEQ ID NO:64). (Black outlined amino acids indicate potential regions of conserved sequence; greyed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs)